



Cat. No. 140MG-H8P-D12

**Bulletin 140MG Motor Circuit Protectors**

- Current range 0.16...1200 A
- UL Listed/Recognized for motor loads
  - Short-circuit protection
  - Overload protection must be provided separately
- Visible trip indication
- High current limiting
- High switching capacity

The Bulletin 140MG Motor Circuit Protectors provide short circuit protection for individual motor loads. Factory-installed internal accessories make installation and wiring easy.

Your order must include: cat. no. of the Motor Circuit Protector or Motor Protection Circuit Breaker selected and, if required, cat. no. of any accessories.

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**Standards Compliance**

IEC 60947-2  
 UL489  
 CSA22.2, No. 5

**Certifications**

CE Marked  
 CSA Certified (File No. LR1234)  
 UR Recognized (File No. E224135)  
 CCC

**General Information**

Motor Circuit Protectors may provide the following protective and control functions.

- Disconnect for Motor Branch Circuit
- Branch-Circuit, Short-Circuit Protection (Magnetic Protection)
- Switching (Manual)

In North America, electrical codes require that an individual Motor Branch Circuit be protected by a UL/CSA Listed Fuse, Circuit Breaker or Self-Protected Combination Motor Controller.

**140MG-G, H, I, J, K, M and N Frames:**

The 140MG-G, H, I, J, K, M and N frame Motor Circuit Protectors are UL/CSA Recognized as Circuit Breakers. They are UL/CSA Recognized, rather than UL/CSA Listed, since they only provide short circuit protection and not thermal overload protection for the motor.

**Motor Circuit Protectors**

- Short-Circuit Protection — Magnetic Trip
- Overload Protection — None (Magnetic Trip Only)

Rated Operational Current ( $I_e$ ) [A]	Magnetic Trip Current [A]									3-phase Hp Ratings★				Max. kW, 3-Phase — AC-3★				Cat. No.‡	
	Cam Setting									200V	230V	460V	575V	230V	400/415V	500V	690V		
	A	B	C	D	E	F	G	H	I										
<b>G-Frame</b>																			
3	9	12	15	18	21	24	27	30	33	0.5	0.5	1.5	2	0.6	0.75	1.1	1.5	140MG-G8P-B30	
7	21	28	35	42	49	26	63	70	77	1.5	2	3	5	1.1	2.2	3	4	140MG-G8P-B70	
15	45	60	75	90	105	120	135	150	165	3	3	10	10	3	5.5	7.5	11	140MG-G8P-C15	
30	90	120	150	180	210	240	270	300	330	7.5	10	20	25	5.5	11	15	22	140MG-G8P-C30	
50	150	200	250	300	350	400	450	500	550	15	15	30	40	11	22	22	37	140MG-G8P-C50	
70	210	280	350	420	490	560	630	700	770	20	25	50	60	15	30	37	55	140MG-G8P-C70	
80	240	320	400	480	560	640	720	800	880	25	30	60	75	22	45	55	75	140MG-G8P-C80	
100	300	400	500	600	700	800	900	1000	1100	30	30	75	100	30	55	75	110	140MG-G8P-D10	
125	375	500	625	750	875	1000	1125	1250	1375	40	40	100	125	22	45	55	90	140MG-G8P-D12	
<b>H-Frame</b>																			
3	9	12	15	18	21	24	27	30	33	0.5	0.5	1.5	2	0.6	0.75	1.1	1.5	140MG-H8P-B30	
7	21	28	35	42	49	26	63	70	77	1.5	2	3	5	1.1	2.2	3	4	140MG-H8P-B70	
15	45	60	75	90	105	120	135	150	165	3	3	10	10	3	5.5	7.5	11	140MG-H8P-C15	
30	90	120	150	180	210	240	270	300	330	7.5	10	20	25	5.5	11	15	22	140MG-H8P-C30	
50	150	200	250	300	350	400	450	500	550	15	15	30	40	11	22	22	37	140MG-H8P-C50	
70	210	280	350	420	490	560	630	700	770	20	25	50	60	15	30	37	55	140MG-H8P-C70	
80	240	320	400	480	560	640	720	800	880	25	30	60	75	22	45	55	75	140MG-H8P-C80	
100	300	400	500	600	700	800	900	1000	1100	30	30	75	100	30	55	75	110	140MG-H8P-D10	
125	625	703	781	859	938	1016	1094	1172	1250	40	40	100	125	22	45	55	90	140MG-H8P-D12	
<b>I-Frame</b>																			
100	600	675	750	825	900	975	1050	1125	1200	30	30	75	100	22	37	45	55	140MG-I8P-D10	
110	660	743	825	908	990	1073	1150	1238	1320	30	40	75	100	22	45	55	90	140MG-I8P-D11	
125	750	844	938	1031	1125	1219	1313	1406	1500	40	40	100	125	22	45	55	90	140MG-I8P-D12	
150	900	1013	1125	1238	1350	1463	1575	1688	1800	50	50	100	150	30	55	75	110	140MG-I8P-D15	
<b>J-Frame</b>																			
150	750	844	938	1031	1125	1219	1313	1406	1500	50	50	100	150	30	55	75	110	140MG-J8P-D15	
175	875	984	1094	1203	1313	1422	1531	1641	1750	50	60	125	150	37	55	90	132	140MG-J8P-D17	
200	1000	1125	1250	1375	1500	1625	1750	1875	2000	60	75	150	200	45	75	90	132	140MG-J8P-D20	
225	1125	1266	1406	1547	1688	1828	1969	2109	2250	75	75	150	200	55	90	110	160	140MG-J8P-D22	
250	1250	1406	1563	1719	1875	2031	2188	2344	2500	75	100	200	250	55	90	132	160	140MG-J8P-D25	

★ The Hp and kW ratings shown are for reference only. They allow for a magnetic trip setting of at least up to 13X the motor FLA. However, the final selection of the MCP should be made based on motor full load current and the requirements of local electrical codes.

‡ The interrupting rating for MCPs is dependent upon the controller used. Please contact your local Rockwell Automation sales office or Allen-Bradley distributor for further information.

Rated Operational Current ( $I_e$ ) [A]	Magnetic Trip Current [A]	3-phase Hp Ratings★				Max. kW, 3-Phase — AC-3★				Cat. No.‡
	$I_3$ (adjustable) [A]	200V	230V	460V	575V	230V	400/415V	500V	690V	
<b>K-Frame</b>										
300	300...3000	75	75	150	200	55	110	160	200	140MG-K8P-D30
400	400...4000	100	100	250	300	90	160	200	250	140MG-K8P-D40
<b>M-Frame</b>										
600	600...6000	125	150	300	400	110	200	250	355	140MG-M8P-D60
800	800...8000	150	200	400	500	160	250	355	500	140MG-M8P-D80
<b>N-Frame</b>										
1200§	1200...12000	250	300	600	700	200	250	500	710	140MG-N8P-E12

★ The Hp and kW ratings shown are for reference only. They allow for a magnetic trip setting of at least up to 13X the motor FLA. However, the final selection of the MCP should be made based on motor full load current and the requirements of local electrical codes.

‡ The interrupting rating for MCPs is dependent upon the controller used. Please contact your local Rockwell Automation sales office or Allen-Bradley distributor for further information.

§  $I_3$  is adjustable between 1...10x motor FLA. Values based on 1200 A rating plug.

# Motor Circuit Protectors

Catalog Number Explanation — 125A, G-Frame & 150 A, I-Frame

## Complete Motor Circuit Protector Assemblies with Factory-Installed Options

Examples given in this section are not intended to be used for product selection. Use these configurations only to select all factory-installed options for shunt trips, undervoltage release units, auxiliary contacts, and alarm contacts. Use the codes from Table f to add on to the motor circuit protector cat. no. selected on the previous pages to form a complete cat. no. for a complete assembly with factory-installed options.



**140MG – I 8 P – C70 – SD – KA**

*a                    b                    c                    d                    e                    f*

*a*

Bulletin No.	
Code	Description
140MG	Global Motor Circuit Protector

*b*

Frame/Rating	
Code	Description
G	125 A
I	150 A

*c*

Interrupting Rating/Breaking Capacity (based on $I_c$ at 480V)	
Code	Description
8	High break

*d*

Protection Type	
Code	Description
P	Adjustable magnetic only (less than $13 \times I_n$ )

*e*

Current Range	
Code	Description
B	e.g., D30 = 3 A
C	e.g., C30 = 30 A
D	e.g., D12 = 120 A

*f*

Factory-Installed Internal Options ♦	
Shunt Trip and Undervoltage Release Units	
Code	Description
SJ	Shunt Trip, 24...30V AC/DC
SK	Shunt Trip, 48...60V AC/DC
SD	Shunt Trip, 110...127V AC; 110...125V DC
SA	Shunt Trip, 220...240V AC; 220...250V DC
SB	Shunt Trip, 380...440V AC
SC	Shunt Trip, 480...525V AC
UJ	Undervoltage Release, 24...30V AC/DC
UR	Undervoltage Release, 48V AC/DC
UD	Undervoltage Release, 110...127V AC; 110...125V DC
UA	Undervoltage Release, 220...240V AC; 220...250V DC
UB	Undervoltage Release, 380...440V AC
UC	Undervoltage Release, 480...525V AC
No Digit	No Selection
Auxiliary and Alarm Contacts	
Code	Description
KA	1 Aux. Contact, 250V
TA	1 Alarm Contact, 250V
AA	1 Aux., 1 Alarm Contact, 250V
BA	2 Aux., 1 Alarm Contact, 250V
AJ	1 Aux., 1 Alarm Contact, 24V

♦ Select up to two internal options: 1 for left side mounting (shunt trip or undervoltage release), 1 for right (auxiliary or alarm contact). Consult your local Rockwell automation sales office or Allen-Bradley distributor for further assistance.



## Complete Motor Circuit Protector Assemblies with Factory-Installed Options

Examples given in this section are not intended to be used for product selection. Use these configurations only to select all factory-installed options for shunt trips, undervoltage release units, auxiliary contacts, and alarm contacts. Use the codes from Table f to add on to the motor circuit protector cat. no. selected on the previous pages to form a complete cat. no. for a complete assembly with factory-installed options.



140MG –
J
8
P
–
D15
–
SD
–
AA

*a*
*b*
*c*
*d*
*e*
*f*

*a*

Bulletin No.	
Code	Description
140MG	Global Motor Circuit Protector

*b*

Frame/Rating	
Code	Description
H	125 A
J	250 A

*c*

Interrupting Rating/Breaking Capacity (based on $I_c$ at 480V)	
Code	Description
8	High break

*d*

Protection Type	
Code	Description
P	Adjustable magnetic only (less than $13 \times I_n$ )

*e*

Current Range	
Code	Description
B	e.g., B30 = 3 A
C	e.g., C30 = 30 A
D	e.g., D20 = 200 A

*f*

Factory-Installed Internal Options♦	
Shunt Trip and Undervoltage Release Units	
Code	Description
SJ	Shunt Trip, 24...30V AC/DC
SK	Shunt Trip, 48...60V AC/DC
SD	Shunt Trip, 110...127V AC; 110...125V DC
SA	Shunt Trip, 220...240V AC; 220...250V DC
SB	Shunt Trip, 380...440V AC
SC	Shunt Trip, 480...525V AC
UJ	Undervoltage Release, 24...30V AC/DC
UR	Undervoltage Release, 48V AC/DC
UD	Undervoltage Release, 110...127V AC; 110...125V DC
UA	Undervoltage Release, 220...240V AC; 220...250V DC
UB	Undervoltage Release, 380...440V AC
UC	Undervoltage Release, 480...525V AC
No Digit	No Selection
Auxiliary and Alarm Contacts, Trip Units	
Code	Description
KA	1 Aux. Contact, 250V
TA	1 Alarm Contact, 250V
AA	1 Aux., 1 Alarm Contact, 250V
BA	2 Aux., 1 Alarm Contact, 250V
DA	1 Trip Unit Alarm Contact, 250V
FB	2 Aux. Contacts, 400V
AB	1 Aux., 1 Alarm Contact, 400V
AJ	1 Aux., 1 Alarm Contact, 24V
DJ	1 Trip Unit Alarm Contact, 24V

♦ Select up to two internal options: 1 for left side mounting (shunt trip or undervoltage release), 1 for right (auxiliary or alarm contact). Consult your local Rockwell automation sales office or Allen-Bradley distributor for further assistance.

# Motor Circuit Protectors

Catalog Number Explanation — 400 A, K-Frame & 800 A, M-Frame

## Complete Motor Circuit Protector Assemblies with Factory-Installed Options

Examples given in this section are not intended to be used for product selection. Use these configurations only to select all factory-installed options for shunt trips, undervoltage release units, auxiliary contacts, and alarm contacts. Use the codes from Table f to add on to the motor circuit protector cat. no. selected on the previous pages to form a complete cat. no. for a complete assembly with factory-installed options.



140MG – M
8
P
– D40 – SD – AA

*a*
*b*
*c*
*d*
*e*
*f*

*a*

Bulletin No.	
Code	Description
140MG	Global Motor Circuit Protector

*b*

Frame/Rating	
Code	Description
K	400 A
M	800 A

*c*

Interrupting Rating/Breaking Capacity (based on $I_c$ at 480V)	
Code	Description
8	High break

*d*

Protection Type	
Code	Description
P	Adjustable magnetic only (less than $13 \times I_n$ )

*e*

Current Range	
Code	Description
D30	e.g., 300 A
D80	e.g., 800 A
Blank	Frame only

*f*

Factory-Installed Internal Options ♦	
Shunt Trip and Undervoltage Release Units	
Code	Description
SJ	Shunt Trip, 24...30V AC/DC
SK	Shunt Trip, 48...60V AC/DC
SD	Shunt Trip, 110...127V AC; 110...125V DC
SA	Shunt Trip, 220...240V AC; 220...250V DC
SB	Shunt Trip, 380...440V AC
SC	Shunt Trip, 480...525V AC
UJ	Undervoltage Release, 24...30V AC/DC
UR	Undervoltage Release, 48V AC/DC
UD	Undervoltage Release, 110...127V AC; 110...125V DC
UA	Undervoltage Release, 220...240V AC; 220...250V DC
UB	Undervoltage Release, 380...440V AC
UC	Undervoltage Release, 480...525V AC
No Digit	No Selection
Auxiliary and Alarm Contacts	
Code	Description
AA	1 Aux., 1 Alarm Contact, 250V
CA	3 Aux., 1 Alarm Contact, 250V
AB	1 Aux., 1 Alarm Contact, 400V
FB	2 Aux. Contacts, 400V
CJ	3 Aux., 1 Alarm Contact, 24V

♦ Select up to two internal options: 1 for left side mounting (shunt trip or undervoltage release), 1 for right (auxiliary or alarm contact). Consult your local Rockwell automation sales office or Allen-Bradley distributor for further assistance.

## Complete Motor Circuit Protector Assemblies with Factory-Installed Options

Examples given in this section are not intended to be used for product selection. Use these configurations only to select all factory-installed options for shunt trips, undervoltage release units, auxiliary contacts, and alarm contacts. Use the codes from Table f to add on to the motor circuit protector cat. no. selected on the previous pages to form a complete cat. no. for a complete assembly with factory-installed options.



**140MG – N 8 P – E12 – SD – AB**

*a**b**c**d**e**f**a*

Bulletin No.	
Code	Description
140MG	Global Motor Circuit Protector

*b*

Frame/Rating	
Code	Description
N	1200 A

*c*

Interrupting Rating/Breaking Capacity (based on $I_c$ at 480V)	
Code	Description
8	High break

*d*

Protection Type	
Code	Description
P	Adjustable magnetic only (less than $13 \times I_n$ )

*e*

Current Range	
Code	Description
E12	1200 A

*f*

Factory-Installed Internal Options ♦	
Shunt Trip and Undervoltage Release Units	
Code	Description
SJ	Shunt Trip, 24V AC/DC
SK	Shunt Trip, 48V AC/DC
SD	Shunt Trip, 110...120V AC/DC
SA	Shunt Trip, 220...240V AC/DC
SB	Shunt Trip, 380V AC
SC	Shunt Trip, 415...440V AC
UJ	Undervoltage Release, 24V AC/DC
UD	Undervoltage Release, 110...120V AC/DC
UA	Undervoltage Release, 220...240V AC/DC
UB	Undervoltage Release, 380...400V AC
UC	Undervoltage Release, 415...440V AC
No Digit	No Selection
Auxiliary and Alarm Contacts	
Code	Description
AJ	1 Aux., 1 Alarm Contact, 24V
AB	1 Aux., 1 Alarm Contact, 400V
FB	2 Aux., 400V

♦ Select one internal option for inner right mounting (shunt trip or undervoltage release). For remote control MCCB operation, select the spring charging motor and operating voltage for shunt trip and shunt close coils from table i. Consult your local Rockwell automation sales office or Allen-Bradley distributor for further assistance.

# Motor Protection Circuit Breakers

Product Selection — 10...150 A, H- and J-Frame

## Motor Protection Circuit Breakers

### Standards Compliance

- EN 60947-1, -2
- UL 489 (Pending)
- CSA 22.2, No. 5 (Pending)

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## Interrupting Rating/Breaking Capacity

Interrupting Rating (50/60 Hz), UL 489/CSA C22.2-5, No. 5-02 [kA]			Breaking Capacity (50/60 Hz), IEC 60947-2								Breaking Capacity (DC), IEC 60947-2 §			
240V	480V	600V	220V★		415V		440V★		690V		250V DC (2-pole in series)		500V DC (3-pole in series)	
			$I_{cu}$ [kA]	$I_{cs}$ [% $I_{cu}$ ]	$I_{cu}$ [kA]	$I_{cs}$ [% $I_{cu}$ ]	$I_{cu}$ [kA]	$I_{cs}$ [% $I_{cu}$ ]	$I_{cu}$ [kA]	$I_{cs}$ [% $I_{cu}$ ]	$I_{cu}$ [kA]	$I_{cs}$ [% $I_{cu}$ ]	$I_{cu}$ [kA]	$I_{cs}$ [% $I_{cu}$ ]
150	65	25	100	100	70	100	65	100	15	100	70	100	70	100

★ These ratings have not been tested for the CCC listing.

Max. Rated Motor Current ( $I_n$ ) [A]	L (Motor FLC)		U		I	Cat. No.‡
	$I_1 = 0.4...1 \times I_n$	Trip Class	50% of $I_1$		$I_n = \text{Instantaneous}$	
<b>H-Frame</b>						
25	10...25	3E, 5E, 10E, 20E (approx. 2...20 s)	ON or OFF	Adjustable from 6...13 x $I_n$		140MG-H8E-C25
60	24...60					140MG-H8E-C60
100	40...100					140MG-H8E-D10
<b>J-Frame</b>						
40	16...40	3E, 5E, 10E, 20E (approx. 2...20 s)	ON or OFF	Adjustable from 6...13 x $I_n$		140MG-J8E-C40
60	24...60					140MG-J8E-C60
100	40...100					140MG-J8E-D10
150	60...150					140MG-J8E-D15

‡ Select the Motor Protection Circuit Breaker based on the motor FLC.

**Bulletin 140G**  
**Molded Case Circuit Breakers**  
**Specifications — G- and H-Frame**

		G-Frame				H-Frame†					
Max. Rated Current	[A]	125		160★		125			160★		
Rated insulation voltage, U <sub>i</sub> , IEC	[V]	800				1000					
NEMA, UL, CSA											
Interrupting Rating Code		G2	G3	G6	G2 G3 G6	H2	H3	H6	H0	H15	H2 H3 H6 H0 H15
240V AC, 50/60Hz	[kA]	50	65	100	50 65 100	65	100	150	200	200	65 100 150 200 200
480V AC, 50/60Hz	[kA]	25	35	65	25 35 65	25	35	65	100	150	25 35 65 100 150
600Y/347V AC, 50/60Hz	[kA]	10	14	25	10 14 25	—	—	—	—	—	—
600V AC, 50/60 Hz	[kA]	—	—	—	—	14	18	25	35	42	14 18 35 35 42
IEC 60947-2											
Rated ultimate short-circuit breaking capacity, I <sub>cu</sub>											
220/230/240V AC, 50/60Hz	[kA]	65	85	100	65 85 100	65	85	100	150	200	65 85 100 150 200
380V AC, 50/60Hz	[kA]	36	50	70	36 60 70	36	50	70	120	150	26 50 70 120 150
415V AC, 50/60Hz	[kA]	36	50	70	36 50 70	36	50	70	120	150	36 50 70 120 150
440V AC, 50/60Hz	[kA]	36	50	65	36 50 65	36	50	65	100	150	36 50 65 100 150
500V AC, 50/60Hz	[kA]	30	36	50	36 50 65	30	36	50	60	70	30 36 50 60 70
525V AC, 50/60Hz	[kA]	22	35	35	22 35 35	20	25	30	36	50	20 25 30 36 50
690V AC, 50/60Hz	[kA]	6	8	10	6 8 10	10	12	15	18	20	10 12 15 18 20
250V DC, 2 Poles in Series	[kA]	36	50	70	36 50 70	36	50	70	85	100	36 50 70 85 100
500V DC, 2 Poles in Series	[kA]	—	—	—	—	—	—	—	—	—	—
500V DC, 3 Poles in Series	[kA]	36	50	70	36 50 70	36	50	70	85	100	36 50 70 85 100
750V DC, 3 Poles in Series	[kA]	—	—	—	—	—	—	—	—	—	—
Rated service short-circuit breaking capacity, I <sub>cs</sub>											
220/230/240V AC, 50/60Hz	[kA]	75% (50)	75%	75%	75% 75% 75%	100%	100%	100%	100%	100%	100% 100% 100% 100% 100%
380V AC, 50/60Hz	[kA]	100%	100%	75%	100% 100% 75%	100%	100% 100%	100%	100%	100%	100% 100% 100% 100% 100%
415V AC, 50/60Hz	[kA]	100%	75%	50%	100% 75% 50%	100%	100%	100%	100%	100%	100% 100% 100% 100% 100%
440V AC, 50/60Hz	[kA]	50%	50%	50%	50% 50% 50%	100%	100%	100%	100%	100%	100% 100% 100% 100% 100%
500V AC, 50/60Hz	[kA]	50%	50%	50%	50% 50% 50%	100%	100%	100%	100%	100%	100% 100% 100% 100% 100%
525V AC, 50/60Hz	[kA]	50%	50%	50%	50% 50% 50%	100%	100%	100%	100%	100%	100% 100% 100% 100% 100%
690V AC, 50/60Hz	[kA]	75%	50%	50%	75 50 50%	100%	100%	100%	75%	75%	100% 100% 100% 75% 75%
250V DC, 2 Poles in Series	[kA]	100%	100%	75%	100% 100% 75%	100%	100%	100%	100%	100%	100% 100% 100% 100% 100%
500V DC, 2 Poles in Series	[kA]	—	—	—	—	—	—	—	—	—	—
500V DC, 3 Poles in Series	[kA]	100%	100%	75%	100% 100% 75%	100%	100%	100%	100%	100%	100% 100% 100% 100% 100%
750V DC, 3 Poles in Series	[kA]	—	—	—	—	—	—	—	—	—	—
Mechanical Life	[No. Ops]	25 000				25 000					
	[Ops/hr]	240				240					
Electrical Life @ 415V AC	[No. Ops]	8000				8000					
	[Ops/hr]	120				120					
Ambient Temp. w/out derating	°F [°C]	104 °F [40 °C]				104 °F [40 °C]					
Storage Temperature	°F [°C]	-40...+176 °F [-40...+80 °C]				-40...+176 °F [-40...+80 °C]					
Dimensions [Width/Depth/Height]	[mm]	3 poles: 76.2x70x130				3 poles: 90x82.5x130					
	[mm]	4 poles: 101.6x70x130				4 poles: 120x82.5x130					

★ IEC version with a 160 A I<sub>cu</sub> rating  
† Cannot be reverse fed above 480V



Bulletin 140G  
**Molded Case Circuit Breakers**  
 Specifications — I- and J-Frame

		I-Frame			J-Frame‡		
Max. Rated Current	[A]	225			250		
Rated insulation voltage, $U_i$ , IEC	[V]	800			1000		
NEMA, UL, CSA							
Interrupting Rating Code		I2	I3	J2	J3	J6	J0
240V AC, 50/60Hz	[kA]	50	65	65	100	150	200
480V AC, 50/60Hz	[kA]	25	35	25	35	65	100
600Y/347V AC, 50/60Hz	[kA]	10	10	—	—	—	—
600V AC, 50/60 Hz	[kA]	—	—	14	18	25	35
IEC 60947-2							
Rated ultimate short-circuit breaking capacity, $I_{cu}$							
220/230/240V AC, 50/60Hz	[kA]	50	85	65	85	100	150
380V AC, 50/60Hz	[kA]	36	50	36	50	70	120
415V AC, 50/60Hz	[kA]	36	50	36	50	70	120
440V AC, 50/60Hz	[kA]	25	40	36	50	65	100
500V AC, 50/60Hz	[kA]	20	30	30	36	50	60
525V AC, 50/60Hz	[kA]	13	20	20	25	45	50
690V AC, 50/60Hz	[kA]	5	6	10	12	15	20
250V DC, 2 Poles in Series	[kA]	36	50	36	50	70	85
500V DC, 2 Poles in Series	[kA]	—	—	36	50	70	85
500V DC, 3 Poles in Series	[kA]	36	50	36	50	70	85
750V DC, 3 Poles in Series	[kA]	—	—	—	—	—	—
Rated service short-circuit breaking capacity, $I_{cs}$							
220/230/240V AC, 50/60Hz	[kA]	75%	50%	100%	100%	100%	100%
380V AC, 50/60Hz	[kA]	75%	50% (27)	100%	100%	100%	100%
415V AC, 50/60Hz	[kA]	75%	50% (27)	100%	100%	100%	100%
440V AC, 50/60Hz	[kA]	75%	50%	100%	100%	100%	100%
500V AC, 50/60Hz	[kA]	75%	50%	100%	100%	100%	100%
525V AC, 50/60Hz	[kA]	75%	50%	100%	100%	100%	100%
690V AC, 50/60Hz	[kA]	50%	50%	100%	100%	100%	100%
250V DC, 2 Poles in Series	[kA]	100%	75%	100%	100%	100%	100%
500V DC, 2 Poles in Series	[kA]	—	—	100%	100%	100%	100%
500V DC, 3 Poles in Series	[kA]	100%	75%	100%	100%	100%	100%
750V DC, 3 Poles in Series	[kA]	—	—	—	—	—	—
Mechanical Life	[No. Ops]	25 000			25 000		
	[Ops/hr]	240			240		
Electrical Life @ 415V AC	[No. Ops]	8000			8000		
	[Ops/hr]	120			120		
Ambient Temp. w/out derating	°F [°C]	104 °F [40 °C]			104 °F [40 °C]		
Storage Temperature	°F [°C]	-40...+176 °F [-40...+80 °C]			-40...+176 °F [-40...+80 °C]		
Dimensions [Width/Depth/Height]	[mm]	3 poles: 105x70x150			3 poles: 105x82.5x160		
	[mm]	4 poles: 140x70x150			4 poles: 140x82.5x160		

‡ Cannot be reverse fed above 600V

# Molded Case Circuit Breakers

## Specifications — K- and M-Frame

		K-Frame				M-Frame			
Max. Rated Current	[A]	400				800			
Rated insulation voltage, U <sub>i</sub> , IEC	[V]	1000				1000			
NEMA, UL, CSA									
Interrupting Rating Code		K3	K6	K0	K15	K5	K6	K0	
240V AC, 50/60Hz	[kA]	100	150	200	200	100	200	200	
480V AC, 50/60Hz	[kA]	35	65	100	150	50	65	100	
600Y/347V AC, 50/60Hz	[kA]	—	—	—	—	—	—	—	
600V AC, 50/60 Hz	[kA]	25	35	65	100	25	35	42	
IEC 60947-2									
Rated ultimate short-circuit breaking capacity, I <sub>cu</sub>									
220/230/240V AC, 50/60Hz	[kA]	85	100	200	200	85	100	200	
380V AC, 50/60Hz	[kA]	50	70	120	200	50	70	100	
415V AC, 50/60Hz	[kA]	50	70	120	200	50	70	100	
440V AC, 50/60Hz	[kA]	40	65	100	180	45	50	80	
500V AC, 50/60Hz	[kA]	30	50	85	150	35	50	65	
525V AC, 50/60Hz	[kA]	—	—	—	—	—	—	—	
690V AC, 50/60Hz	[kA]	25	40	70	80	22	25	30	
250V DC, 2 Poles in Series	[kA]	—	—	—	—	—	—	—	
500V DC, 2 Poles in Series	[kA]	36	50	70	100	—	—	—	
500V DC, 3 Poles in Series	[kA]	—	—	—	—	—	—	—	
750V DC, 3 Poles in Series	[kA]	25	36	70	70	20	36	50	
Rated service short-circuit breaking capacity, I <sub>cs</sub>									
220/230/240V AC, 50/60Hz	[kA]	100%	100%	100%	100%	100%	100%	75%	
380V AC, 50/60Hz	[kA]	100%	100%	100%	100%	100%	100%	75%	
415V AC, 50/60Hz	[kA]	100%	100%	100%	100%	100%	100%	75%	
440V AC, 50/60Hz	[kA]	100%	100%	100%	100%	100%	100%	75%	
500V AC, 50/60Hz	[kA]	100%	100%	100%	100%	100%	100%	75%	
525V AC, 50/60Hz	[kA]	—	—	—	—	—	—	—	
690V AC, 50/60Hz	[kA]	100%	100%	100%	100%	75%	75%	75%	
250V DC, 2 Poles in Series	[kA]	—	—	—	—	—	—	—	
500V DC, 2 Poles in Series	[kA]	100%	100%	100%	100%	—	—	—	
500V DC, 3 Poles in Series	[kA]	—	—	—	—	—	—	—	
750V DC, 3 Poles in Series	[kA]	100%	100%	100%	100%	75%	75%	75%	
Mechanical Life	[No. Ops]	20000				20000			
	[Ops/hr]	120				120			
Electrical Life @ 415V AC	[No. Ops]	7000 (400 A) - 5000 (630 A)				7000 (630 A) - 5000 (800 A) - 4000 (1000 A)			
	[Ops/hr]	60				60			
Ambient Temp. w/out derating	°F [°C]	104 °F [40 °C]				104 °F [40 °C]			
Storage Temperature	°F [°C]	-40...+176 °F [-40...+80 °C]				-40...+176 °F [-40...+80 °C]			
Dimensions [Width/Depth/Height]	[mm]	3 poles: 140x108.5x205				3 poles: 210x103.5x268			
	[mm]	4 poles: 185x103.5x205				4 poles: 280x103.5x268			



Bulletin 140G  
**Molded Case Circuit Breakers**  
 Specifications — N-, NS-, and R-Frame

		N-, NS-Frame			R-Frame
Max. Rated Current	[A]	1200			2000/2500/3000
Rated insulation voltage, U <sub>i</sub> , IEC	[V]	1000			1000
NEMA, UL, CSA					
Interrupting Rating Code		N5	N6	N0	R12
240V AC, 50/60Hz	[kA]	65	100	150	125
480V AC, 50/60Hz	[kA]	50	65	100	125
600Y/347V AC, 50/60Hz	[kA]	—	—	—	—
600V AC, 50/60 Hz	[kA]	25	50	65	100
IEC 60947-2					
Rated ultimate short-circuit breaking capacity, I <sub>cu</sub>					
220/230/240V AC, 50/60Hz	[kA]	85	100	200	130
380V AC, 50/60Hz	[kA]	50	70	120	80
415V AC, 50/60Hz	[kA]	50	70	120	80
440V AC, 50/60Hz	[kA]	50	65	100	80
500V AC, 50/60Hz	[kA]	40	50	85	40
525V AC, 50/60Hz	[kA]	—	—	—	—
690V AC, 50/60Hz	[kA]	30	42	50	40
250V DC, 2 Poles in Series	[kA]	—	—	—	—
500V DC, 2 Poles in Series	[kA]	—	—	—	—
500V DC, 3 Poles in Series	[kA]	—	—	—	—
750V DC, 3 Poles in Series	[kA]	—	—	—	—
Rated service short-circuit breaking capacity, I <sub>cs</sub>					
220/230/240V AC, 50/60Hz	[kA]	100%	100%	100%	100%
380V AC, 50/60Hz	[kA]	100%	100%	100%	—
415V AC, 50/60Hz	[kA]	100%	100%	100%	100%
440V AC, 50/60Hz	[kA]	100%	100%	100%	100%
500V AC, 50/60Hz	[kA]	100%	100%	75%	100%
525V AC, 50/60Hz	[kA]	—	—	—	—
690V AC, 50/60Hz	[kA]	100%	75%	75%	100%
250V DC, 2 Poles in Series	[kA]	—	—	—	—
500V DC, 2 Poles in Series	[kA]	—	—	—	—
500V DC, 3 Poles in Series	[kA]	—	—	—	—
750V DC, 3 Poles in Series	[kA]	—	—	—	—
Mechanical Life	[No. Ops]	10000			15000
	[Ops/hr]	60			60
Electrical Life @ 415V AC	[No. Ops]	2000			4500 (2000 A) - 4000 (2500 A) - 3000 (3200 A)
	[Ops/hr]	60			60
Ambient Temp. w/out derating	°F [°C]	104 °F [40 °C]			104 °F [40 °C]
Storage Temperature	°F [°C]	-40...+176 °F [-40...+80 °C]			-40...+176 °F [-40...+80 °C]
Dimensions [Width/Depth/Height]	[mm]	3 poles: 210x154(N)/178(NS)x268			3 poles: 427x282x382
	[mm]	4 poles: 280x154(N)/178(NS)x268			4 poles: 553x282x382